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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,380	01/23/2006	Genichiro Ota	L9289.06101	5562

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EXAMINER	
TIMORY, KABIR A	

ART UNIT	PAPER NUMBER
2611	

MAIL DATE	DELIVERY MODE
01/14/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Interview Summary	**Application No.**	**Applicant(s)**	
	10/565,380	OTA ET AL.	
	Examiner	**Art Unit**	
	KABIR A. TIMORY	2611	

All participants (applicant, applicant's representative, PTO personnel):

(1) *KABIR A. TIMORY*. (3) *Shuwang Liu*.

(2) *David Ward*. (4)_____.

Date of Interview: *12 January 2011*.

Type: a)☒ Telephonic b)☐ Video Conference
c)☐ Personal [copy given to: 1)☐ applicant 2)☒ applicant's representative]

Exhibit shown or demonstration conducted: d)☐ Yes e)☒ No.
If Yes, brief description: _____.

Claim(s) discussed: *1*.

Identification of prior art discussed: _____.

Agreement with respect to the claims f)☐ was reached. g)☒ was not reached. h)☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: *The cited prior art and claimed invention was discussed. Specifically, the applicant's representative argued that (1) the cited prior art (Daoud) discloses using a higher carrier frequency to generate a USB signal than that used to generate an LSB signal, whereas applicants' claimed subject matter recites using a higher carrier frequency to generate an LBS signal than that used to generate a USB signal. (2) "by a fundamental frequency of the first input symbol and second input symbol".*
To response the first argument's of applicant's representative, the examiner discussed figure 2 of prior art (Daoud) and figure 5 of instant application. The examiner states that both figures (figure 2 of Daoud and figure 5 of instant application) have the same structure and components and they both produce the same results. Moreover, in column 4, lines 38-49, Daoud teaches that "Preferably the frequency of the second carrier signal wc2 used in the upper sideband generator is slightly higher than the frequency of the first carrier signal wc1 used in the lower sideband generator, so there is a frequency gap between the lower sideband signal and the upper sideband signal. This gap essentially eliminates the possibility of cross-talk between the two signals. In a typical voice grade telephone line communication channel, a gap of approximately 200 Hz is sufficient to prevent such cross-talk while not significantly detracting from the usable bandwidth of the communication channel".
Based on these two figures (figure 2 of Daoud and figure 5 of instant application) and above teachings of Daoud, the only difference between the cited prior art and claimed invention is that Daoud uses a higher carrier frequency to generate a USB signal whereas the claimed invention uses and higher carrier frequency to generate an LBS signal by a fundamental frequency of the first input symbol and second input symbol.
However, since both figures (figure 2 of Daoud and figure 5 of instant application) have the same structure and components, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify the system of Daoud by switching the carrier frequencies wc1 and wc2 of Daoud and applying to the first carrier signal wc1 used in the lower sideband generator a higher frequency than the second carrier signal wc2 used in the upper sideband generator by a frequency gap of 200 Hz (KSR – some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teaching to arrive at the claimed invention). Also, the examiner interprets that the frequency gap of 200 Hz to be fundamental frequency.
Also, during the telephone interview the definition of fundamental frequency of input symbol was discussed; however no clear definition was provided. The applicant's representative pointed to page 25, line 8-15 of the specification of instant application; however, it is unclear in the specification of instant application how an input symbol can have a fundamental frequency.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

/Kabir A Timory/ Examiner, Art Unit 2611	

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record
A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews
Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.
All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:
- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

1) A brief description of the nature of any exhibit shown or any demonstration conducted,
2) an identification of the claims discussed,
3) an identification of the specific prior art discussed,
4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
5) a brief identification of the general thrust of the principal arguments presented to the examiner,
   (The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
6) a general indication of any other pertinent matters discussed, and
7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.